

**ADAPTIVE LOAD DISTRIBUTION IN MANAGING DYNAMIC AND TRANSIENT DATA
FOR DISTRIBUTED APPLICATIONS**

ABSTRACT

A method, system, and computer program for dynamically adjusting
5 the workload of an active resource associated with at least one parent
workload group. The parent workload group includes a collection of
workload units, with each associated to a key identifier such that
workload units belonging to the parent workload group share an
10 identical sequence of values at a specified depth value of the key
identifier. The active resource independently determines whether an
overload condition exists. If an overload condition exists, the depth
value of the parent workload group is increased. The active resource
may also consolidate a workload group if an under-load condition
exists. Dynamically adjusting the workload of an active resource can
15 be used as part of a method or system to dynamically adjust the
workload of a distributed computing application across a dynamically
varying set of active resources, and subsequently redirecting entities
to the dynamically changing target resource.